REMARKS/ARGUMENTS

The present Amendment is in response to the Final Office Action having a mailing date of August 23, 2006. Claims 1-24 are pending in the present Application. Applicant has amended claims 1, 13, and 15. Consequently, claims 1-24 remain pending in the present Application.

Applicant has amended claims 1 and 15 to incorporate a portion of the limitations of claims 2 and 16, respectively, and to recite that the tester is external to the high speed circuit. Support for the amendment can also be found in Figures 3A and 3B of the present application. Applicant has also amended claim 13 to correct a minor error. Accordingly, Applicant respectfully submits that no new matter is added.

This application is under Final Rejection. Applicant has presented arguments hereinbelow that Applicant believes should render the claims allowable. In the event, however, that the Examiner is not persuaded by Applicant's arguments, Applicant respectfully requests that the Examiner enter the Amendment to clarify issues upon appeal.

In the above-identified Office Action, the Examiner objected to claim 13. Applicant has amended claim 13 in accordance with the Examiner's suggestion. Accordingly, Applicant respectfully submits that the Examiner's objection has been addressed.

In the above-identified Office Action, the Examiner rejected claims 1, 15, and 23 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6201,829 (Schneider) in view of U.S. Patent No. 5,301,156 (Talley). In response to Applicant's arguments, the Examiner cited Schneider, Fig. 5; col. 8, lines 32-42; and col. 9, lines 8-11 as teaching a first frequency greater than one GHz and a second frequency not greater than one GHz.

Applicant respectfully traverses the Examiner's rejection. Claims 1 and 15 recite a method and a system for testing a high speed circuit using a tester. Claims 1 and 15 recite obtaining a high-speed statistical signature of the high-speed circuit using a tester and comparing the high-speed statistical signature of the high-speed circuit to an expected signature. Claims 1 and 15 further recite that the high speed circuit has a first frequency of greater than one GHz, while the tester has a second frequency of not greater than one GHz. Claims 1 and 15 also recite that the tester is external to the high speed circuit. Thus, in addition to other benefits claims 1 and 15 may allow testing of high frequency circuits using lower frequency, less expensive testers. Specification, page 9, lines 1-10.

Schneider fails to teach or suggest a system which has an external tester that operates at a different frequency range than the circuit under test. Schneider describes a system that utilizes a tester that provides a signal having a frequency of greater than one GHz. Schneider, Abstract and col. 8, lines 48-57. Although Schneider describes a data stream that has a frequency of less than one GHz, this data stream is a parallel version of a serial signal having a frequency of greater than one GHz. See, for example, Schneider col. 5, lines 6-10. Schneider serializes the data stream to provide a signal of greater than one MHz. Schneider, col. 8, lines 21-57. Consequently, the circuit of Schneider is configured to operate at the same frequency as the tester of Schneider in that the two "signals" correspond to the same data, with on in parallel and the other being serialized. In contrast to the methods recited in claims 1 and 15, the generator/tester and the circuit being tested are configured to operate in the same frequency range.

In addition, the tester of Schneider is incorporated into the circuit and provides self testing capabilities. Schneider, Abstract, col. 1, lines 7-11. The tester and the device under test are thus part of the same circuitry in Schnneider. This is in contrast to the method and system recited in claims 1 and 15, respectively.

Talley fails to remedy the defects of Schneider. The cited portion of Talley does describe a test signature generator. Talley, col. 7, lines 34-52. However, Applicant has found no mention in Talley of utilizing a tester that operates at a frequency operating in the same range as the circuit under test. In addition, applicant has found no mention in Talley of utilizes a separate testing device. Instead, Talley describes a "self-test" circuit. Talley, Abstract. Thus, if the teachings of Talley are added to those of Schneider, the combination may incorporate the signature generator of Talley into the system of Schneider. However, the tester and the test signature generated would still have a frequency in the same range as circuit under test. In addition, the tester and circuit under test would still be present in a single device. Consequently, Schneider in view of Talley fails to teach or suggest the recited methods and system. Accordingly, Applicant respectfully submits that claims 1 and 15 are allowable over the cited references.

Claim 23 depends upon independent claim 15. Consequently, the arguments herein apply with full force to claim 23. Accordingly, Applicant respectfully submits that claim 23 is also allowable over the cited references.

The Examiner also rejected claims 2-9 and 16-21 under 35 U.S.C. § 103 as being unpatentable over Schneider and Talley in further view of U.S. Patent No. 5,329,559 (Wong).

Applicant respectfully traverses the Examiner's rejection. Claims 2-9 and 16-21 depend upon independent claims 1 and 15, respectively. Consequently, the arguments herein apply with full force to claims 2-9 and 16-21. In particular, Schneider in view of Talley fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers which (in contrast to self-test generators) are separate from the circuit under test.

Wong fails to remedy the defects of Schneider and Talley. Applicant agrees that the cited portion of Wong describe delays in the signals used. However, Applicant has found no mention in the cited portion of Wong of the tester having a frequency in a range outside the range of the circuit being tested in combination with a separate tester being used. Consequently, any combination of Schneider, Talley, and Wang fail to teach or suggest this feature. Furthermore, Accordingly, Schneider in view of Talley in further view of Wong fail to teach or suggest the tester having a different frequency than and being separate from the circuit being tested. Accordingly, Applicant respectfully submits that claims 2-9 and 16-21 are allowable over the cited references.

The Examiner also rejected claims 10 and 24 under 35 U.S.C. § 103 as being unpatentable over Schneider and Talley in further view of U.S. Patent No. 4,870,425 (Gunny).

Applicant respectfully traverses the Examiner's rejection. Claims 10 and 24 depend upon independent claims 1 and 15, respectively. Consequently, the arguments herein apply with full force to claims 10 and 24. In particular, Schneider in view of Talley fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers that are separate from the circuit being tested. Specification, page 9, lines 1-10.

Gunny fails to remedy the defects of Schneider and Talley. Applicant agrees that the cited portion of Gunny describe subtracting certain signals used. However, Applicant has found no mention in the cited portion of Gunny of the tester having a frequency in a range outside the range of the circuit being tested in combination with a separate tester being used. Consequently, any combination of Schneider, Talley, and Gunny fail to teach or suggest this feature. Accordingly, Applicant respectfully submits that claims 2-9 and 16-21 are allowable over the cited references.

The Examiner also rejected claims 11 and 12 under 35 U.S.C. § 103 as being unpatentable over Schneider and Talley and Gunny in further view of U.S. Patent No. 5,019,899 (Boles).

Applicant respectfully traverses the Examiner's rejection. Claims 11 and 12 depend upon independent claim 1. Consequently, the arguments herein apply with full force to claims 11 and 12. In particular, Schneider in view of Talley and Gunny fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers separate from the high frequency circuits.

Boles fails to remedy the defects of Schneider, Talley, and Gunny. Applicant has found no mention in the cited portion of Boles of the tester having a frequency in a range outside the range of the circuit being tested in combination with a separate tester being used. Consequently, any combination of Schneider, Talley, and Boles fail to teach or suggest this feature. Accordingly, Applicant respectfully submits that claims 11-12 are allowable over the cited references.

The Examiner also rejected claim 13 under 35 U.S.C. § 103 as being unpatentable over Schneider and Talley and Wong.

Applicant respectfully traverses the Examiner's rejection. Claim 13 is analogous to independent claims 1 and 15. Consequently, the arguments herein apply with full force to claim 13. In particular, Schneider in view of Talley in further view of Wong fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers separate from the circuit being tested.

The Examiner also rejected claim 14 under 35 U.S.C. § 103 as being unpatentable over Schneider, Talley, and Wong in further view of Gunny.

Applicant respectfully traverses the Examiner's rejection. Claim 14 depends upon independent claim 13. Consequently, the arguments herein apply with full force to claim 14. In particular, Schneider, Talley, and Wong fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers separate from the circuit being tested.

Gunny fails to remedy the defects of Schneider, Talley, and Wong. As discussed above, Applicant has found no mention in the cited portion of Gunny of the tester having a frequency in a range outside the range of the circuit being tested and that are separate from the circuit being tested. Consequently, any combination of Schneider, Talley, Wong, and Gunny fail to teach or suggest this feature. Accordingly, Applicant respectfully submits that claim 14 is allowable over the cited references.

The Examiner also rejected claim 22 under 35 U.S.C. § 103 as being unpatentable over Schneider and Talley in further view of U.S. Patent No. 5,212,601 (Wilson).

Applicant respectfully traverses the Examiner's rejection. Claim 22 depends upon independent claim 15. Consequently, the arguments herein apply with full force to claim 22. In particular, Schneider and Talley fail to teach or suggest allow testing of high frequency circuits using lower frequency, less expensive testers separate from the circuit being tested.

Wilson fails to remedy the defects of Schneider and Talley. Applicant has found no mention in the cited portion of Wilson of the tester having a frequency in a range outside the range of the circuit being tested and that is separate from the circuit being tested. Consequently, any combination of Schneider, Talley, and Wilson fail to teach or suggest this feature. Accordingly, Applicant respectfully submits that claim 22 is allowable over the cited references.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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Date

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